

Form PTO-1449

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number (Specimen)

NUS-03-001

Application Number

10/802,563

Applicant

Hong Yun Yu et al.

Filing Date

03/17/04

Group Art Unit

U. S. PATENT DOCUMENTS

| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|-----------------|----------|-----------------------|-------|----------|-------------------------------|
| SK | 62251685 | 11/01 | Gardner et al. | 438 | 287 | 6/4/98 |
| SK | 6383879 | 5/7/02 | Kizilyalli et al. | 438 | 303 | 5/17/00 |
| SK | 6511911 | 1/28/03 | Besser et al. | 438 | 656 | 4/3/01 |
| SK | 6617624 | 9/9/03 | Powell | 257 | 288 | 3/15/01 |
| SK | 6043157 | 3/28/00 | Gardner et al. | 438 | 692 | 12/18/97 |
| SK | 5960270 | 9/28/99 | Misra et al. | 438 | 197 | 8/11/97 |
| SK | 6083836 | 7/4/00 | Rodder | 438 | 690 | 12/18/98 |
| SK | 6576967 | 6/10/03 | Schaeffer, III et al. | 257 | 411 | 9/18/00 |
| SK | 6479362 | 11/12/02 | Cunningham | 438 | 369 | 2/14/01 |
| SK | 6208004 | 3/27/01 | Cunningham | 257 | 413 | 8/19/98 |
| SK | 6051487 | 4/18/00 | Gardner et al. | 438 | 585 | 12/18/97 |

FOREIGN PATENT DOCUMENTS

| DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
|-----------------|------|---------|-------|----------|-------------|----|
| | | | | | YES | NO |
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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| SK | - | Heuss et al., Abstract C7.6 "Thermal Stability of Hafnium and Hafnium Nitride (HfN _x) Gate Electrodes on Silicon Dioxide," pp. 67, 76-77, Materials Res. Soc. Proc., April 2000. |
| SK | - | "Physical and Electrical Properties of Metal Gate Electrodes on HfO ₂ Gate Dielectrics," by J.K. Schaeffer et al., Journal of Vacuum Science and Tech., Vol. 21(1), Jan/Feb. 2003, pp. 11-17. |

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

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| SK | - | "Thermal Stability of PVD TiN Gate and Its Impacts on Characteristics of CMOS Transistors," by M. Wang et al., 6th Int'l Symp. on Plasma Process Induced Damage, May 4-15, 2001, Monterey, CA, USA, pp. 36-39. |
| SK | - | "Metal Gates for Advanced Sub-80-nm SOI CMOS Technology," by B. Cheng et al., 2001 IEEE Int'l SOI Conf., 10/01, pp. 91-92. |

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U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Portion or Pages, Etc.)

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| SK | - | "Properties and Microelectronic Applications of Thin Films of Refractory Metal Nitrides", by M. Wittmar, Jnl. of Vacuum Science Tech. A, Vol. 3, pp. 1797-1803. |
| SK | - | "Int'l Tech. Roadmap for Semiconductor", Semiconductor Industry Association, San Jose, CA (ITRS-2003). |

EXHIBIT

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On our Art Unit

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| SR | - | US Patent App. Pub. US 2003/0197230 A1 to Mocuta et al.; Pub. Date 10/23/03, Filed 04/19/02, US Class 257/407. |
| SR | - | US Patent App. Pub. US 2002/0037615 A1 to Matsuo, Pub. Date 03/28/02, Filed 09/25/01, US Class 438/241. |
| SR | | |



5/20/05

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